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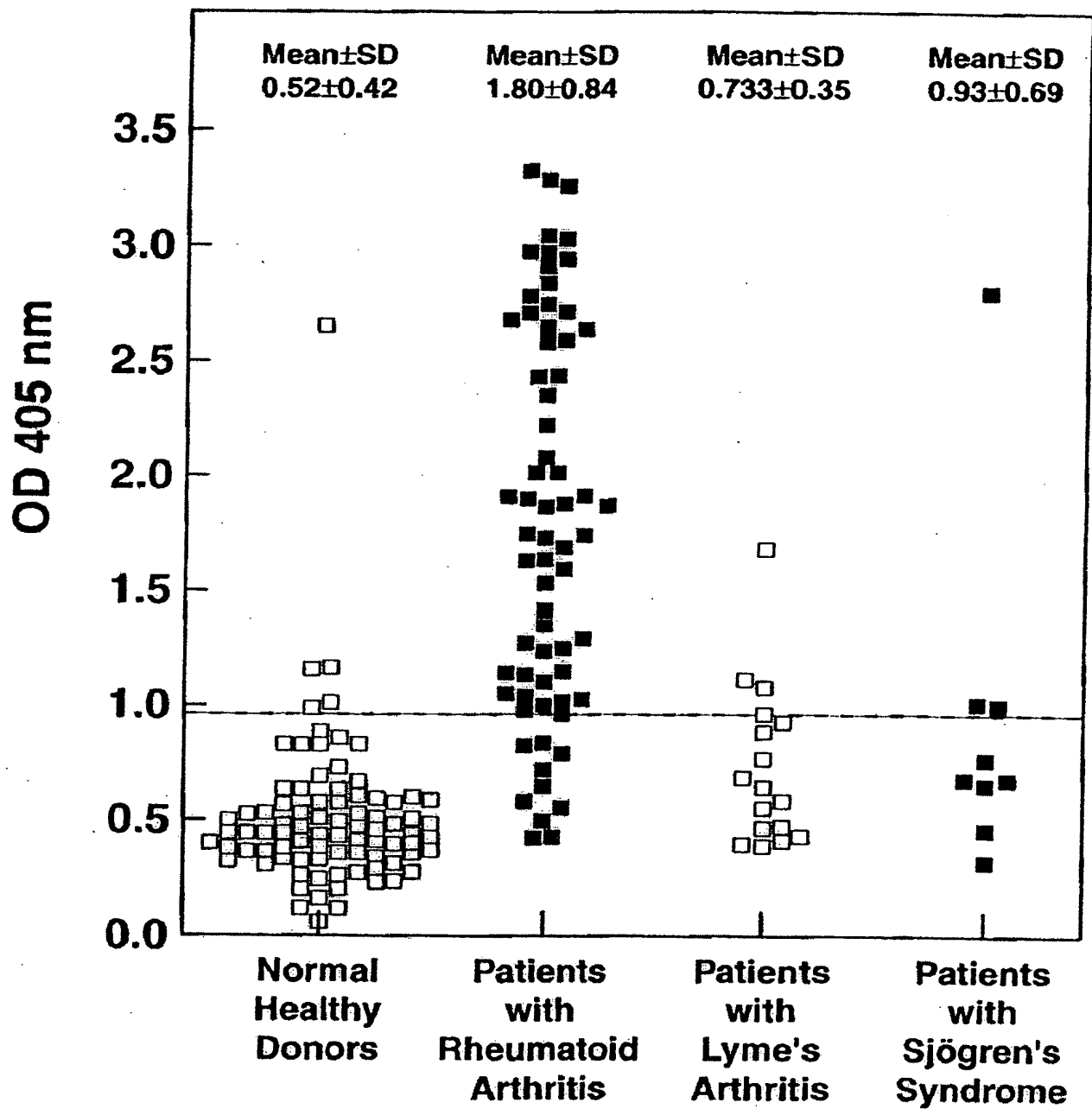


FIG. 1A

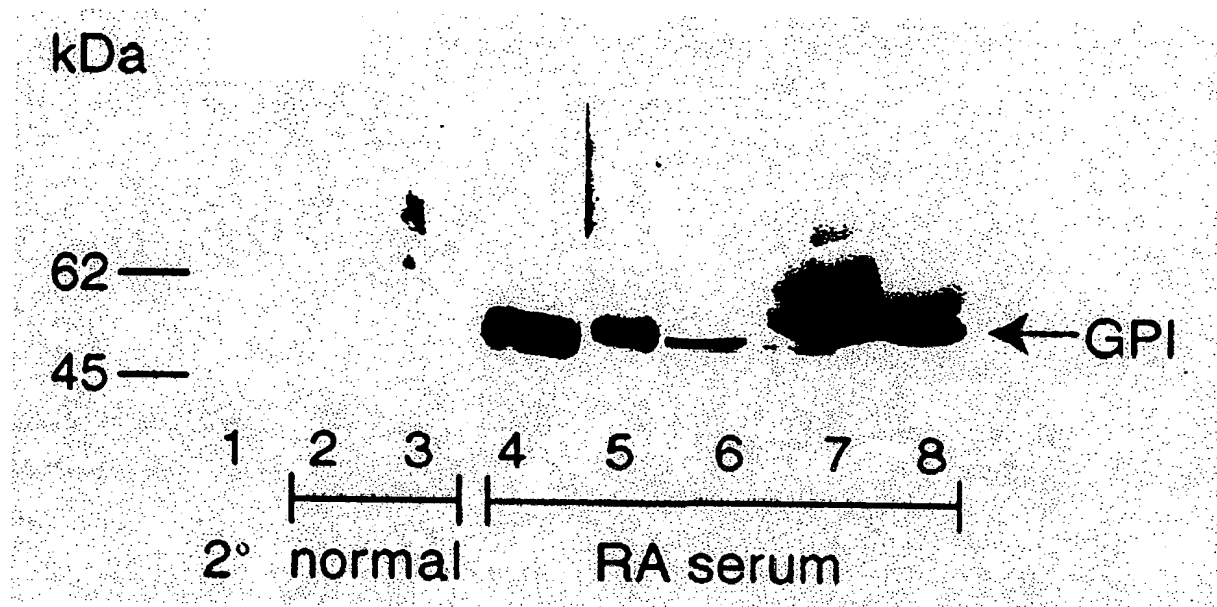


FIG. 1B

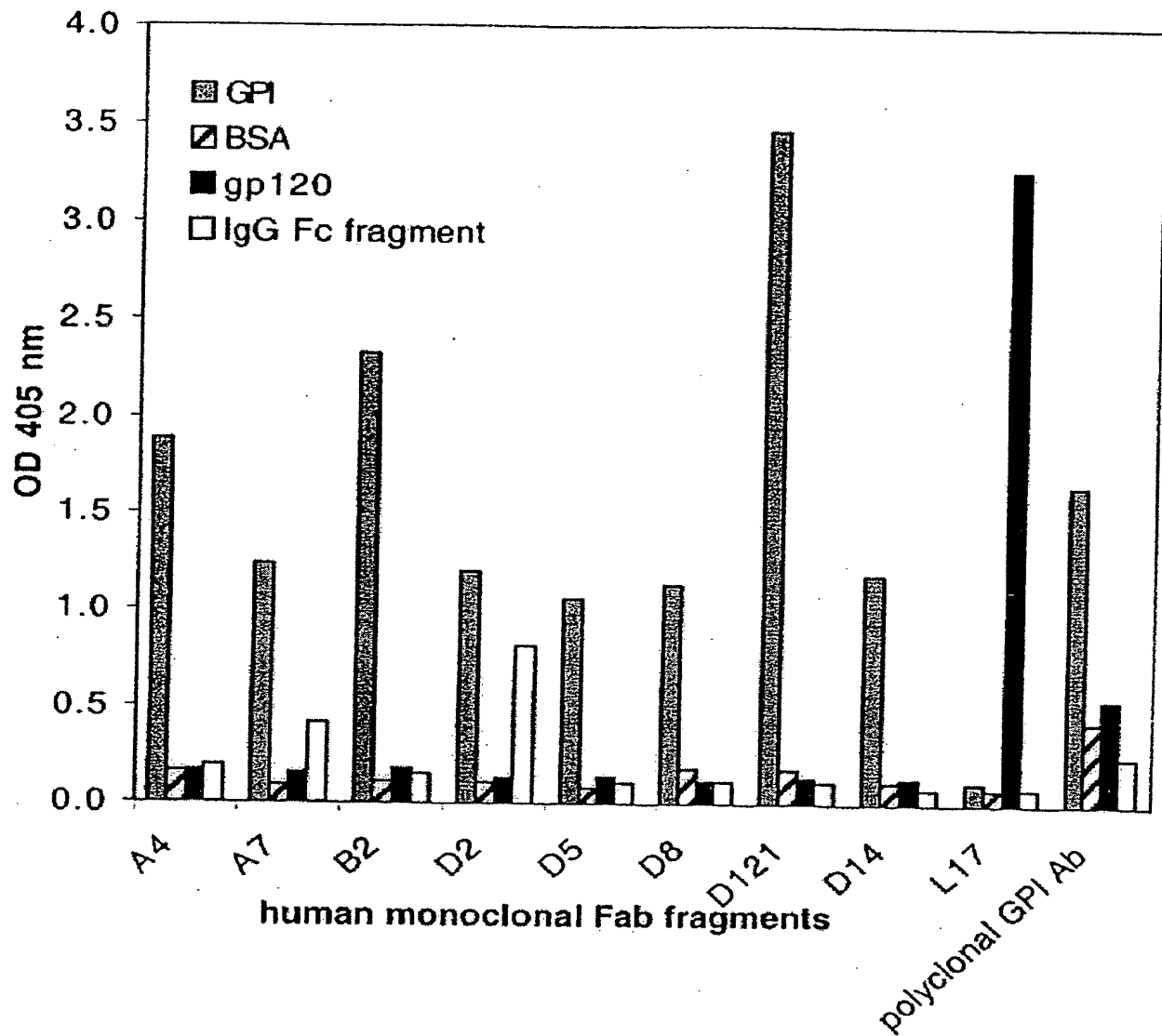


FIG. 2

Light Chain Variable AA Sequences

| <u>Name</u> | <u>SEQ ID NO.</u> | <u>FR1</u> | <u>CDR1</u> | <u>FR2</u> |
|------------------------|-----------------------|------------------|-------------------|-----------------|
| A4 | 1 | PDSLAVSLGERATNC | KSSQSVFYTSNNKNYLA | WYQQKPGQPPKLLIY |
| D2 | 2 | PSFLSASVGDRTITC | RASQGISSYLA | WYQLKPGKAPKLLIY |
| D121 | 3 | PGTSLSPGERATLSC | RASQSVSSSYLA | WYQQKPGQAPRLLIY |
| B2 | 4 | PDSLAVSLGERATNC | KSSQSVFYTSNNKNYLA | WYQQKPGQPPKLLIY |
| D14 | 5 | PGTSLSPGEGATLSC | RASQSVSSSYLA | WYQQRPGQAPRLLIY |
| D5 | 6 | PGTSLSPGEGATLSC | RASQSVSSSYLA | WYQQKPGQAPRLLIY |
| A7 | 7 | PGTSLSPGERVTLSC | RASQSVSSSYLA | WYQQKPGQAPRLLIY |
| <u>Name cont'd</u> | <u>CDR2</u> | <u>FR3</u> | <u>CDR3</u> | <u>FR4</u> |
| A4 | WASTRES | GVPDRFSGSGGTDFLT | TISSLQAEDVAVYYC | FGQGTKLEIKRTVA |
| D2 | AASTLOS | GVPSRFSGSGGTDFLT | TISSLQPEDFATYYC | FGGGAKVGRRTVA |
| D121 | GASSRAT | GIPDRFSGSGGTDFLT | TISRLEPEDFAVYYC | FGQGTKVEIKRTVA |
| B2 | WASTRES | GVPDRFSGSGGTDFLT | TISSLQAEDVAVYYC | FGQGTKLEIKRTVA |
| D14 | GASSRAT | GIPDRFSGSGGTDFST | TISSLQPEDTGTYYC | FGQGTRLEIKRTVA |
| D5 | GASSRAT | GIPDRFSGSGGTDFLT | TISRLEPEDFAVYYC | FGQGTRLEIKRTVA |
| A7 | GASSRAT | GIPDRFSGSGGTDFLT | TISRLEPEDFAVYYC | FGQGTKVEIKRTVA |

FIG. 3AL

TITLE: AUTOANTIBODIES TO GLUCOSE-6-PHOSPHATE ISOMERASE AND THEIR PARTICIPATION IN AUTOIMMUNE DISEASE

INVENTORS NAME: Henrik Ditzel et al.

SERIAL NO.: 09/828,708

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Heavy Chain Variable AA Sequences

| Name | SEQ ID NO. | FR1 | CDR1 | FR2 | CDR2 | FR4 | VH gene |
|------|------------|------------------------------------|-----------------------|----------------|--------------------|-----|---------|
| A4 | 8 | GGGVVQPGRSRLKLSAASGFTFS | SHGSH | WVRQAPGKGLEWVA | LLSSDGSNKFYIESVKG | | |
| D2 | 9 |AW..LR..V..... | ..TM. | ..... | ..TM. | | |
| D121 | 10 |R..... | .YTF. | ..... | VI.Y..NK.Y.AD.... | | |
| B2 | 11 | GAEVRKPGTSVRISCRASGNTFT | GHHIH | WVRQAPGQGLQWMG | RINPTGGVSLAQSFQD | | |
| D14 | 12 | GGGLVQPGGSLRLSCATSGFIEN | SYAMN | WVRQAPGKGLEWVS | RISGNSGSTFYADSVKG | | |
| D5 | 13 | GPGLVRPSQTLTLTCPVSPGSIK | GDSYFWS | WVRQPVGKGLEWIG | RIYGRGTTNYNRVFGS | | |
| A7 | 14 | GAEVKKPGSSVKVSCRASGGTFS | RYAIS | WVRQAPGQGLEWMG | GIIPPFPGPVNYAQKFQG | | |
| A4 | | RFTISKDNSKNTLYLQMNLSLRIDDTAVYYCAI | SLVGTTAFNY | | WGQGTILVTVSS | | VH3 |
| D2 | |R.....LS...PE.....TN | .E..A...D. |  | ..... |  | VH3 |
| D121 | |VE..... | .I..... | | | | VH3 |
| B2 | | RVSLTRDRSSNTVFLELSGLTEEDTALYFCAR | PRFNMIREPLDL | | WGQGTIVVTVSS | | VH1 |
| D14 | | RFTISRDNKNTAFLRMNSQRAEDTAVYYCAK | DLSSGAYYYGMDV | | WGQGTIVVTVSS | | VH3 |
| D5 | | RVSMVSVDMSRSQFFLELRDVTAAADTAVYYCAR | DKGSEYSYFDP | | WGQGIIVVNVFS | | VH4 |
| A7 | | RVTITADDSTNTAYMGLSLRSRSGDTAVYYCAR | VAYDGSYYNNIPKIYYYSYMD | | WGKGTTIVTVSS | | VH1 |

FIG. 3AH

TITLE: AUTOANTIBODIES TO GLUCOSE-6-PHOSPHATE ISOMERASE AND THEIR
 PARTICIPATION IN AUTOIMMUNE DISEASE
 INVENTORS NAME: Henrik Ditzel et al.
 SERIAL NO.: 09/828,708

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| Name | SEQ ID NO: | FR1 | CDR1 | FR2 | CDR2 |
|--------|------------|--------------------------|---------|----------------|---------------------|
| A4 | 8 | GGGVVQPGRSLSKLSCAASGFTFS | SHGSH | WVRQAPGKGLEWVA | LLSSDGSNKFYIESVKG |
| D2 | 9 |AW..LR...V..... | ..TM. | | ..TM. |
| D121 | 10 |R..... | .YTF. | | VI.Y..NK.Y.AD..... |
| DP-46 | |R..... | .YAM. | | VI.Y.....AD..... |
| B2 | 11 | GAEVRKPGTSVRISCRASGNTFT | GHHIH | WVRQAPGQGLQWVG | RINPTGGVSLAQSFQD |
| DP-7 | |K...A..KV..K...Y... | SYTMH |E... | I...S..ST.Y..K..G |
| D14 | 12 | GGGLVQPGGSLRLSCATSGFIFN | SYAMN | WVRQAPGKGLEWVS | RISGNSGSTFYADSVKG |
| VH26 | |A...T.S |S | | A...SG...Y..... |
| D5 | 13 | GPGLVRPSQTLTLTCLPVSPGSIK | GDSYFWS | WVRQPVGKGLEWIG | RIYGRGTTNYNRVFGS |
| IGHCAK | |K.....T..G...S | SG..Y.. | .I...A..... | ...TS.S....PSLK. |
| A7 | 14 | GAEVKKPGSSVKVSCRASGGTFS | RYAIS | WVRQAPGQGLEWVG | GIIPFPFPGPVNYAQKFQG |
| VH1-69 | |K..... | S..... | ..... | .....I..TA..... |

FIG. 3B

TITLE: AUTOANTIBODIES TO GLUCOSE-6-PHOSPHATE ISOMERASE AND THEIR PARTICIPATION IN AUTOIMMUNE DISEASE

INVENTORS NAME: Henrik Ditzel et al.

SERIAL NO.: 09/828,708

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| Name cont'd | FR3 | CDR3 | FR4 | VH gene |
|-------------|----------------------------------|---------------|--------------|---------|
| A4 | RFTISKDNSKNTLYLQMNSLRIDDTAVYYCAI | SLVGTTFENY | WGQGTLLVTVSS | VH3 |
| D2 | ...R...LS...PE...TN | .E..A...D. | ..... | VH3 |
| D121 |VE..... | .I..... | ..... | VH3 |
| DP-46 | ...R.....AE.....R | | | |
| B2 | RVSLTRDRSSNTVFLELSGLTEEDTALYFCAR | PRFNMIREPLDL | WGQGTLLVTVSS | VH1 |
| DP-7 | ..TM...T.TS..YM...S.RS....V.Y... | | | |
| D14 | RFTISRDNKNTAFLRMNSQRAEDTAVYYCAK | DLSSGAYYYGMDV | WGQGTLLVTVSS | VH3 |
| VH26 |LY.Q...L..... | | | |
| D5 | RVSMVDMRSRQFFLELRDVTAAADTAVYYCAR | DKGSEYSYFDP | WGQGIIVNVFS | VH4 |
| IGHCAK | ..TI...T.KN..S.K.SS..... | | | |
| A7 | RVTITADDSTNTAYMGLSSLRSGDTAVYYCAR | VAYDGSYYNNI | WGKGTLLVTVSS | VH1 |
| VH1-69 |K..S....E.....E..... | PKIYYSYMDV | | |

FIG. 3B Cont'd

| Clone | Closest Germline | % amino acid homology | % nucleotide homology | R/S ratio FRs | R/S ratio CDRs |
|-------|---------------------|--------------------------|--------------------------|------------------|-------------------|
| A4 | DP-46 | 86 | 89 | 6/6:1.0 | 12/5:2.4 |
| D2 | DP-46 | 87 | 92 | 8/6:1.3 | 4/5:0.8 |
| D121 | DP-46 | 91 | 95 | 2/4:0.5 | 7/0:>7.0 |
| B2 | DP-7 | 67 | 79 | 20/17:1.2 | <u>14/5:2.8</u> |
| D14 | VH26 | 87 | 93 | 7/3:2.3 | 5/2:2.5 |
| D5 | IGHCAK | 73 | 81 | 17/16:1.1 | 13/4:3.3 |
| A7 | VH1-69 | 90 | 94 | 7/2:3.5 | 5/0:>5.0 |

FIG. 3C

TITLE: AUTOANTIBODIES TO GLUCOSE-6-PHOSPHATE ISOMERASE AND THEIR
 PARTICIPATION IN AUTOIMMUNE DISEASE
 INVENTORS NAME: Henrik Ditzel et al.
 SERIAL NO.: 09/828,708

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CDR's Heavy Chain

| SEQ ID NO: | CDR1 | SEQ ID NO: | CDR2 | SEQ ID NO: | CDR3 |
|------------|---------|------------|--------------------|------------|------------------------|
| 15 | SHGSH | 22 | LLSSDGSNKFYIESVKG | 29 | SLVGTTFNFY |
| 16 | .TM. | 23 | .IFY.....Y.AD.... | 30 | .E.A...D. |
| 17 | .YTF. | 24 | VI.Y...NK.Y.AD.... | 31 | .I..... |
| 18 | GHHIH | 25 | RINPTGGGVSLAQSFQD | 32 | PRFNMIREFPLDL |
| 19 | SYAMN | 26 | RISGNSGSTFYADSVKG | 33 | DLSSGAYYYYGMDV |
| 20 | GDSYFWS | 27 | RIYGRGTTNYNRVFGS | 34 | DKGSEYSYFDP |
| 21 | RYAIS | 28 | GIIPFGPVNYAQKFQG | 35 | VAYDGGGYNNIPKIYYYSYMDV |

CDR's Light Chain

| SEQ ID NO: | CDR1 | SEQ ID NO: | CDR2 | SEQ ID NO: | CDR3 |
|------------|-------------------|------------|---------|------------|-----------|
| 36 | KSSQSVFYTSNNKNYLA | 43 | WASTRES | 50 | QQYYDSYT |
| 37 | RASQGISSYLA | 44 | AASTLQS | 51 | QQLNSYPLT |
| 38 | RASQSVSSSYLA | 45 | GASSRAT | 52 | QQYGSSPRT |
| 39 | KSSQSVFYTSNNKNYLA | 46 | WASTRES | 53 | QQYYDSYT |
| 40 | RASQSVSSSYLA | 47 | GASSRAT | 54 | QQYDNPVDT |
| 41 | RASQSVSSSYLA | 48 | GASSRAT | 55 | QQYGTSPPL |
| 42 | RASQSVSSSYLA | 49 | GASSRAT | 56 | QQYGSSPRT |

FIG. 4A

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Framework Regions, Heavy Chain

| SEQ ID | FR1 | SEQ ID | FR2 |
|--------|------------------------------------|--------|----------------|
| NO: | | NO: | |
| 57 | GGGVVQPGRSCLKLSAASGFTFS | 64 | WVRQAPGKGLEWVA |
| 58 |AW..LR...V..... | 64 | ..... |
| 59 |R..... | 64 | ..... |
| 60 | GAEVKPKGTSVRISCRASGNTFT | 65 | WVRQAPGQGLQWMG |
| 61 | GGGLVQPGGSLRLSCATSGFIFN | 66 | WVRQAPGKGLEWVS |
| 62 | GPLVLRPSQTLTLTCPVSPGSIK | 67 | WVRQPVGKGLEWIG |
| 63 | GAEVKKPGSSVKVSCRASGGTFS | 68 | WVRQAPGQGLEWNG |
| SEQ ID | FR3 | SEQ ID | FR4 |
| NO: | | NO: | |
| 69 | RFTISKDNSKNTLYLQMNSLRIDDTAVYYCAI | 76 | WGQGTLLVTVSS |
| 70 |R.....LS...PE.....TN | 76 | ..... |
| 71 |VE..... | 76 | ..... |
| 72 | RVSLTRDRSSNTVFLELSGLTEEDTALYFCAR | 77 | WGQGTVVTVSS |
| 73 | RFTISRDN SKNTAFLRMNSQRAEDTAVYYCAK | 78 | WGQGTTVTVSS |
| 74 | RVSMVSVDMSRSQFFLELRDVTAAADTAVYYCAR | 79 | WGQGIVVNVFS |
| 75 | RVTITADDSTNTAYMGLSSLRSGDTAVYYCAR | 80 | WGKGTTTVTVSS |

FIG. 4B

TITLE: AUTOANT DIES TO GLUCOSE-6-PHOSPHAT. SOMERASE AND THEIR
 PARTICIPATION IN AUTOIMMUNE DISEASE
 INVENTORS NAME: Henrik Ditzel et al.
 SERIAL NO.: 09/828,708

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Framework Regions, Light Chain

| SEQ ID NO: | FR1 | SEQ ID NO: | FR2 |
|------------|--------------------------------|------------|-----------------|
| 81 | PDSLAVSLGERATINC | 88 | WYQQKPGQPPKLLIY |
| 82 | PSFLSASVGDRTITC | 89 | WYQLKPGKAPKLLIY |
| 83 | PGTSLSPGERATLSC | 90 | WYQQKPGQAPRLLIY |
| 84 | PDSLAVSLGERATINC | 91 | WYQQKPGQPPKLLIY |
| 85 | PGTSLSPGEGATLSC | 92 | WYQQRPGQAPRLLIY |
| 86 | PGTSLSPGEGATLSC | 93 | WYQQKPGQAPRLLIY |
| 87 | PGTSLSPGERVTLSC | 94 | WYQQKPGQAPRLLIY |
| SEQ ID NO: | FR3 | SEQ ID NO: | FR4 |
| 95 | GVPDRFSGSGTDFTLTISLQAEDVAVYYC | 102 | FGQGTKLEIKRTVA |
| 96 | GVPSRFSGSGTEFTLTISLQPEDFATYYC | 103 | FGGGAKEVGIRRTVA |
| 97 | GIPDRFSGSGTDFTLTISRLEPEDFAVYYC | 104 | FGQGTKVEIKRTVA |
| 98 | GVPDRFSGSGTDFTLTISLQAEDVAVYYC | 105 | FGQGTKLEIKRTVA |
| 99 | GIPDRFSGSGTDFSTISLQPEDTGTYYC | 106 | FGQGTRLEIKRTVA |
| 100 | GIPDRFSGSGTDFTLTISRLEPEDFAVYYC | 107 | FGQGTRLEIKRTVA |
| 101 | GIPDRFSGSGTDFTLTISRLEPEDFAVYYC | 108 | FGQGTKVEIKRTVA |

FIG. 4B Cont'd

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LIGHT CHAIN NUCLEOTIDE SEQUENCE OF ANTI-GPI ANTIBODIES

A4 - SEQ ID NO:112

CCAGACTCCCTGGCTGTCTCTGGGCGAGAGGGCCACCATCAACTGCAAGTCAGCCAGAGTGTTTTACACTTCCACAATAA
GAACTACTTAGCTTGGTACCAGCAGAAACCAGGCCAGCCTCCTAAGTTGCTCATTTACTGGGCATCCACCCGGGAATCCGGGGTCC
CTGACCGATTACGTGGCAGCGGGTCTGGGACAGATTTCATCTCACCATCAGCAGCCTGACAGCTGAAGATGTGGCAGTTTATTAC
TGTCAGCAATATTATGATTCTGTACACTTTTGGCCAGGGGACCAAGCTGGAGATCAACGAACCTGTGGCT

D2 - SEQ ID NO:113

CCATCCTCCTGTCTGTAGGAGACAGAGTCACCATCACTTGCCGGGCCAGTCAAGGCATTAGCAGTTATTTAGCCTGGTAT
CAGCTAAACCCGGGAAAGCCCTAAGCTCCTGATCTATGCTGCATCCACTTTGCCAAAGTGGGTCCCATCAAGGTTTCAGCGGCAG
TGGATCTGGGACAGAAATTCATCTCACAATAAGCAGCCTGCAGCCTGAAGATTITGCAACTTATTACTGTCAACAGCTTAATAGTT
ACCTCTCACTTTCTGGCGGAGGGGCCAAGGTGGGATCAGACGAACTGTGGCT

D121 - SEQ ID NO:114

CCAGGCACCTGTCTTTGTCTCCAGGGGAAAGAGCCACCCCTCTCCTGTCAGGGCCAGTCAGAGTGTTAGCAGCAGCTACCTAGCCTG
GTACCAGCAGAAACCTGGCCAGGCTCCAGGCTCCTCATATGTTGCATCCAGCGGCCACTGGCATCCAGACAGGTTTCAGTG
GCAGTGGTCTGGGACAGACTTCATCTCACCATCAGCAGACTGGAGCCTGAAGATTTTGCAAGTATTACTGTGTCAGCAGTATGGT
AGCTCACCTCGGACGTTCCGGCCAAAGGGACCAAGGTGGAAATCAACGAACTGTGGCT

B2 - SEQ ID NO:115

CCAGACTCCCTGGCTGTCTCTGGGCGAGAGGGCCACCATCAACTGCAAGTCAGCCAGAGTGTTTTACACTTCCACAATAA
GAACTACTTAGCTTGGTACCAGCAGAAACCAGGCCAGCCTCCTAAGTTGCTCATTTACTGGGCATCCACCCGGGAATCCGGGGTCC
CTGACCGATTACGTGGCAGCGGGTCTGGGACAGATTTCATCTCACCATCAGCAGCCTGACAGCTGAAGATGTGGCAGTTTATTAC
TGTCAGCAATATTATGATTCTGTACACTTTTGGCCAGGGGACCAAGCTGGAGATCAACGAACCTGTGGCT

FIG. 5A

D14 - SEQ ID NO:116

CCAGGCACCCTGTCTCTCCAGGGGAAGGAGCCACCCTCTCTCTGCAAGGCCAGTCAGAGTGTAGCAGCAGCTACCTAGCCTG
GTATCAGCAGAGACCTGGCCAGGCTCCAGGCTCCTCATCTATGTGTCATCCAGCAGGCCACCGGCATCCCAGACAGATTTCAGTG
GAAGTGGATCTGGGACAGATTTCAGTTTACCATCAGCAGTCTGCAGCCTGAAGATACTGGGACATATTACTGTCAACAATATGAT
AATGTCCCTGACACTTTTGGCCAGGGACCAGGCTGGAGATCAACGAACTGTGGCT

D5 - SEQ ID NO:117

CCAGGCACCCTGTCTTGTCTCCAGGGGAAGGAGCCACCCTCTCTCTGCAAGGCCAGTCAGAGTGTAGCAGCAGCTACTTAGCCTG
GTACCAGCAGAAACCTGGCCAGGCTCCAGGCTCCTCATCTATGTGTCATCCAGTAGGGCCACTGGCATCCAGACAGGTTTCAGTG
GCAGTGGTCTGGGACAGACTTCACTCTCACCATCAGCAGACTGGAGCCTGAAGATTTGTCAGTGTATTACTGTCAGCAGTATGGT
ACCTCACCCCTCTTCGGCCAGGGACACGACTGGAGATTAAACGAACTGTGGCT

A7 - SEQ ID NO:118

CCAGGCACCCTGTCTTGTCTCCAGGGGAAGAGTCACCTCTCTCTCTGCAAGGCCAGTCAGAGTGTAGCAGCAGTTACTTAGCCTG
GTACCAGCAGAAACCTGGCCAGGCTCCAGGCTCCTCATCTATGTGTCATCCAGCAGGCCACTGGCATCCCAGACAGGTTTCAGTG
GCAGTGGTCTGGGACAGACTTCACTCTCACCATCAGCAGACTGGAGCCTGAAGACTTTGTCAGTTTATTACTGTCAGCAGTATGGA
AGCTCACCTCGGACGTTTCGGCCAGGGACCAAGGTGGAAATCAACGAACTGTGGCT

FIG. 5A Cont'd

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HEAVY CHAIN NUCLEOTIDE SEQUENCE OF ANTI-GPI ANTIBODIES

A4-H - SEQ ID NO:116

GAGGGTGGTCCAGCCTGGAGGTCCCTGAAACTCTCCTGTGCAGCCTCTGGATTACAAITTCAGTAGTCATGGCTGCACTGGGTC
CGCCAAAGCTCCAGGCAAGGGCTGGAGTGGGTGGCACTTTTGTCTGATGGAAGTAATAAATTCTATATAGAAATCCGTGAAGG
GCCGATTACCAATCTCCAAGGACAATTCTAAGAACACACACTGTATCTGCAAAATGAACAGCCTGAGAATTGACGACACGGCTGTCTAT
TACTGTGCGATTTCCTGTGTGGAACTACCGCTTTTAACTACTGGGGCCAGGGAACCCCTGGTCAACCGTCTCCTCA

D2-H - SEQ ID NO:117

GGCGTGGTCCAAAGCATGGAGGTCCCTAAGACTCTCCTGTGTAGCCTGTGGATTACCTTCAGTAGTCATACCATGCACCTGGGTCCG
CCAGGCTCCAGGCAAGGGCTGGAGTGGGTGGCACTTATATTTCTATGATGGAAGTAATAAATACTATGCAGACTCCGTGAAGGGC
CGATTACCAATCTCCAGAGACAATTCCAAGAACAACGCTGTATCTGCAATTGAGCAGCCTAAGACCTGAGGACACGGCTGTCTATTA
TTGTACGAATTCCGAGGTGGAGCTACCGCTTTTGAATACTGGGGCCAGGGAACCCCTGGTCAACCGTCTCCTCAG

D121-H - SEQ ID NO:118

GGGAGGCGTGGTCCAGCCTGGGAGGTCCCTGAGACTTTTCCCTGTGCAGCCTCTGGATTCACTTCAGTTCCTATACTTTCCACTGG
GTCCGCCAGGCTCCAGGCAAGGGCTGGAGTGGGTGGCACTTATATCATATGATGGAACAAGAAATACTACGCAGACTCCGTGA
AGGCCGATTCAACATCTCCAGAGACAATTCCAAGAACAACACTCTATATCTGCAAAATGAACAGCCTGAGAGTTGAGGACACGGCTGTT
TATTACTGTGCGATTTCATAGTGGAACTACCGCTTTTAACTACTGGGGCCAGGGAACCCCTGGTCAACCGTCTCCTC

FIG. 5B

B2-H - SEQ ID NO:119

GGGGCTGAGGGTGAGGAAGCCCGGACCTCCGTGAGGATCTCTTGAGGGCATCTGGAAACACCTTCACTGGCCACCATATTCACTG
GGTCCGCCAGGCCCTGGACAAGGCTTCAGTGGATGGGAAGAAATCAACCCGACTGGCGGCGGTAGTCTCGCACAGAGTTTC
CAGGACAGAGTCAAGCCTGACCCAGGACAGGTCGTCCAAATACAGTCTCTTGAACTGAGCGGCTCACGGAGGAGACACGGCCT
TATAATTCTGTGCGAGGCCCGGATTTAACATGATCCGGGAACCTCTTGACCTCTGGGGCCAGGGACAGTGGTCACCGTCTCTCTCA

D14-H - SEQ ID NO:120

GGGGAGGCTTGGTACAGCCTGGGGGTCCCTGAGACTCTCCTGTGCAACCTCTGGATTTCATCTTTAAACAGCTATGCCATGAACCTG
GGTCCGCCAGGCTCCAGGGAAGGGCTTGAGTGGTCTCAGGTATTAGTGGAATAGTGGAAGCACATTCTACGCAGACTCCGTG
AAGGCCGCTTCACCATCTCCAGAGACAATTCCAAGAACACGGGTTTCTGCGAATGAACAGCCAGAGAGCCGAAGACACGGGCGG
TTTATTACTGTGCGAAAGATCTGTGAGTGGTGTCATACTACTACGGGATGGACGTCTGGGGCCAAAGGACCAACGGTCAACCGTC
TCCTCA

D5-H - SEQ ID NO:121

GGCCCAGGATTGGTGAGGCCATCACAGACCCCTATCCCTCACCTGCACCTGTCTCTCCAGGCTCCATTAAAGGTGATAGTTACTTCTGG
AGCTGGTCCGTAGCCCGTAGGGAAGGACTGGAGTGGATAGGGCGTATCTACGGCAGAGGGAATACCAATTACAACCGTGT
TCGGGAGTCGAGTCAGTATGTCAAGTGGACATGTCCAGGAGTCAGTTTCTTGGAATTGAGAGATGTACCCCGCAGACACGGCC
GTCTATTACTGTGCGAGAGACAAGGGGTCCGAATACTCCTACTTTGACCCCTGGGGCCAGGGAATAGTGGTCAACGTCCTCTCA

FIG. 5B Cont'd

TITLE: AUTOANTIBODIES TO GLUCOSE-6-PHOSPHATE ISOMERASE AND THEIR
PARTICIPATION IN AUTOIMMUNE DISEASE

INVENTORS NAME: Henrik Ditzel et al.

SERIAL NO.: 09/828,708

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A7-H - SEQ ID NO:122

GGGCTGAGGTGAAGAAGCCTGGGTCCTCGGTGAAGTCTCCTGCAGGGCTTCTGGAGGCACATTCAGCAGATATGCTA
TCAGCTGGGTGCGACAGGCCCTGGACAAAGGCTTGAGTGGATGGAGGGATCATCCCTCCCTTTGGTCCAGTAAACT
ACGCACAGAAAGTTCCAGGGCAGAGTCACGATTACCGCGGACGATTCCACGACACAGCCTACATGGGTCTGAGCAGCC
TGAGATCTGGGGACACGGCCGTGTATTACTGCGCGAGAGTGGCCTATGATGCTATTACACAATATCCCAA
AGATCTACTACTCCTACATGGACGTCTGTGGGCAAGGGACCAACCGTCAACCGTGTCTCAGC

FIG. 5B Cont'd

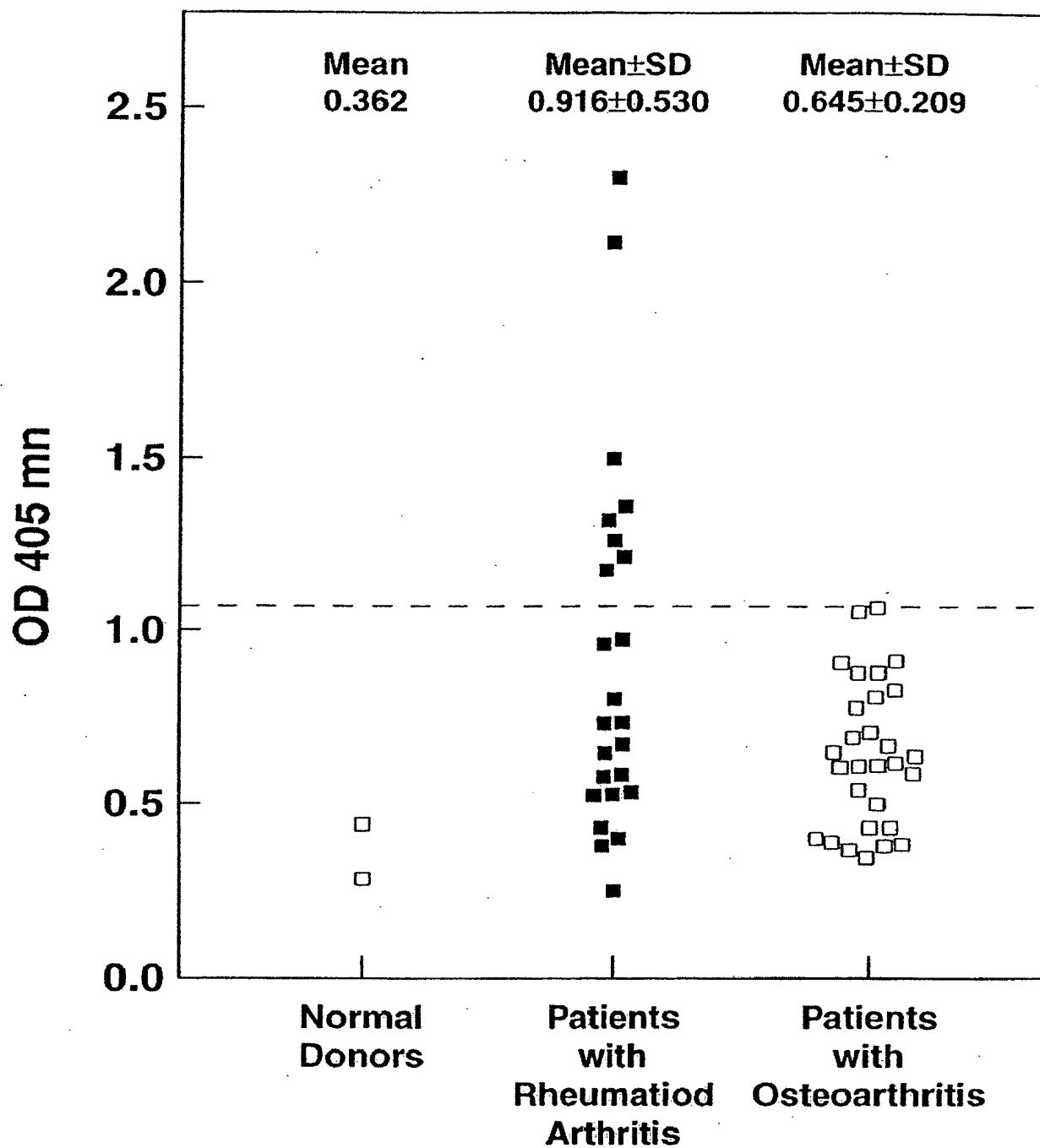


FIG. 6

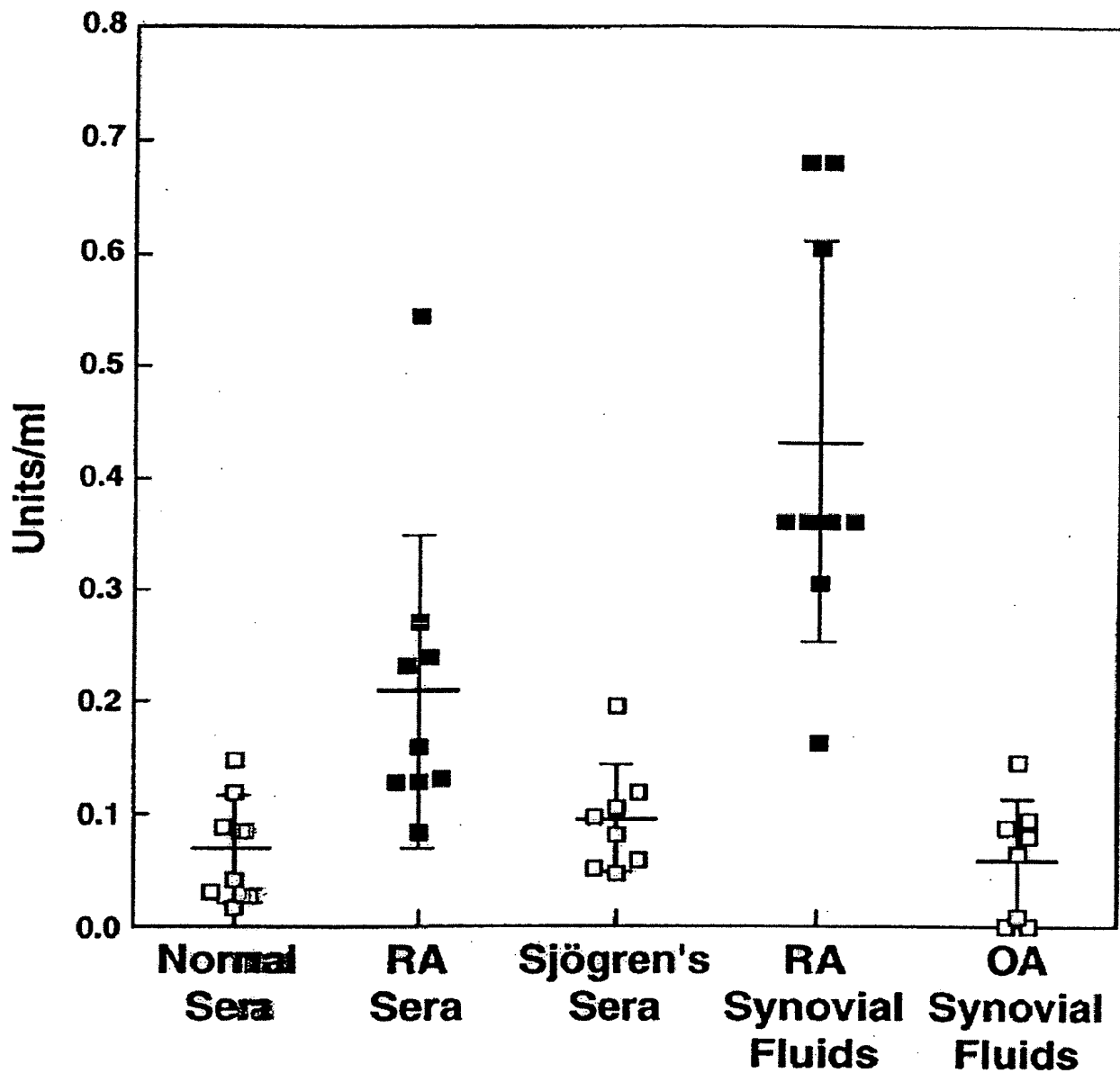


FIG. 7

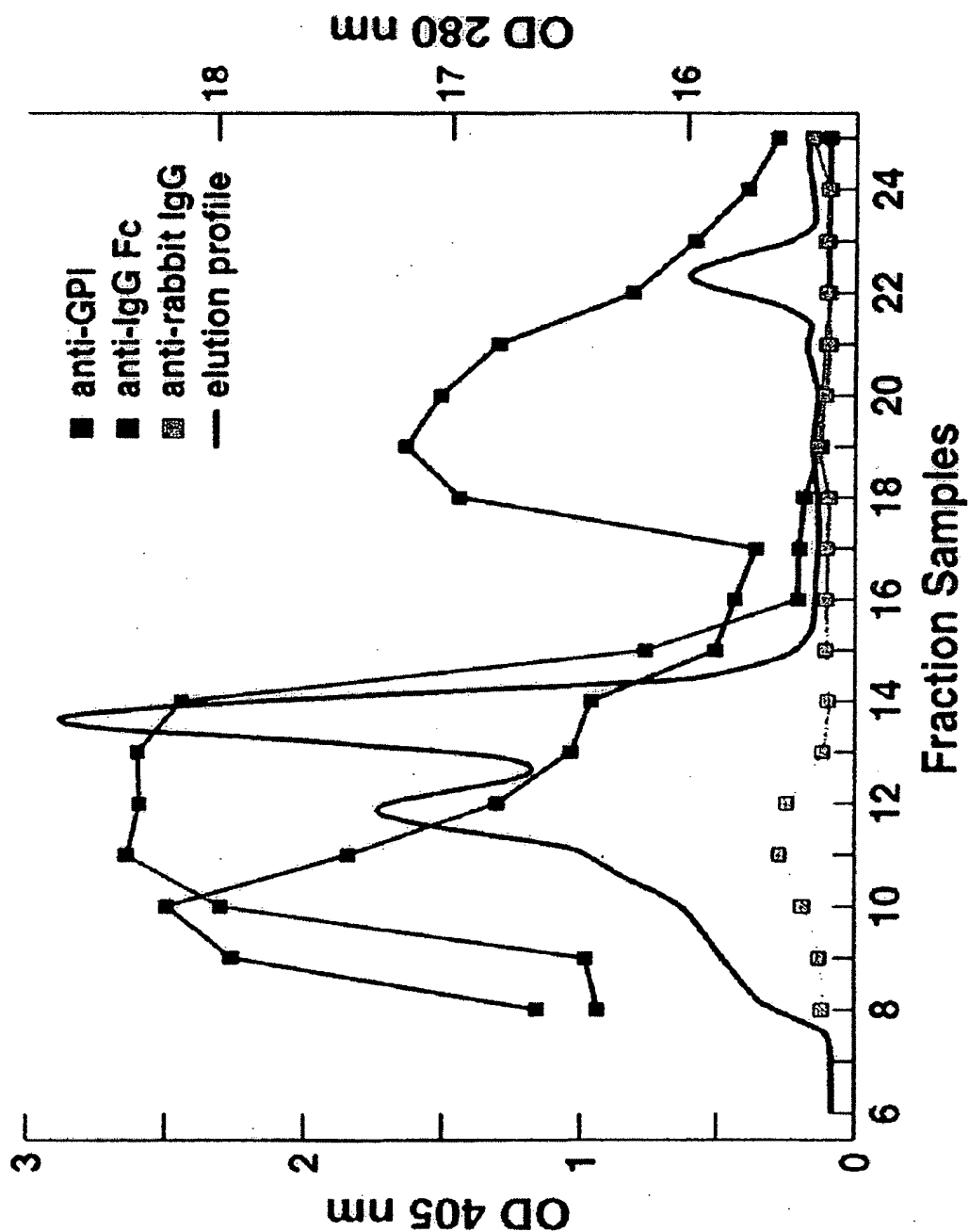


FIG. 8A

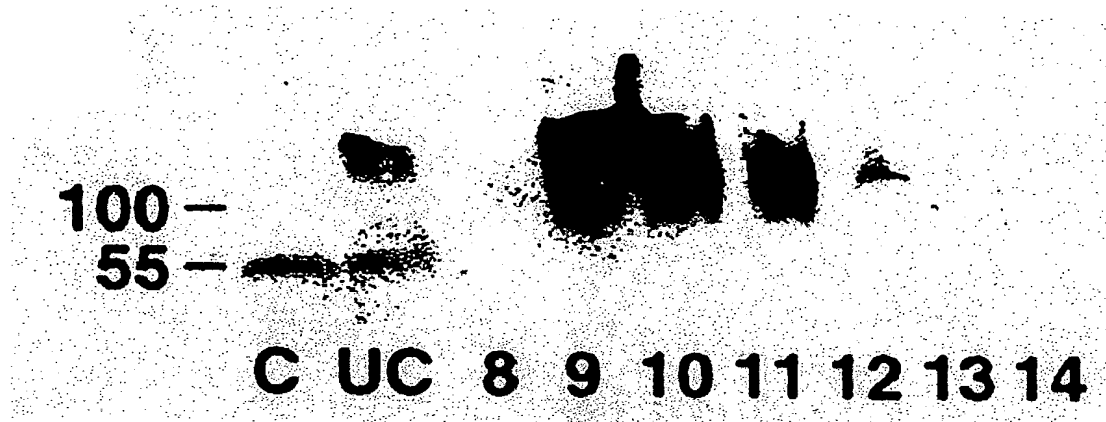


FIG. 8B

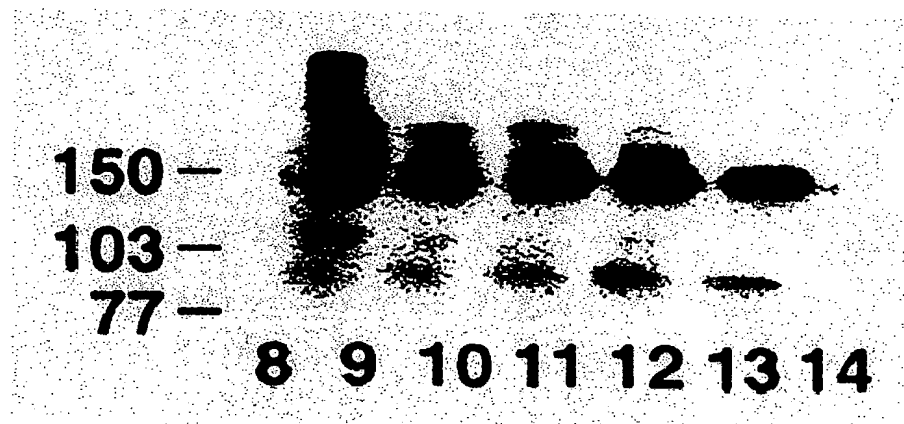


FIG. 8C

TITLE: AUTOANTIBODIES TO GLUCOSE-6-PHOSPHATE ISOMERASE AND THEIR
PARTICIPATION IN AUTOIMMUNE DISEASE
INVENTORS NAME: Henrik Ditzel et al.
SERIAL NO.: 09/828,708

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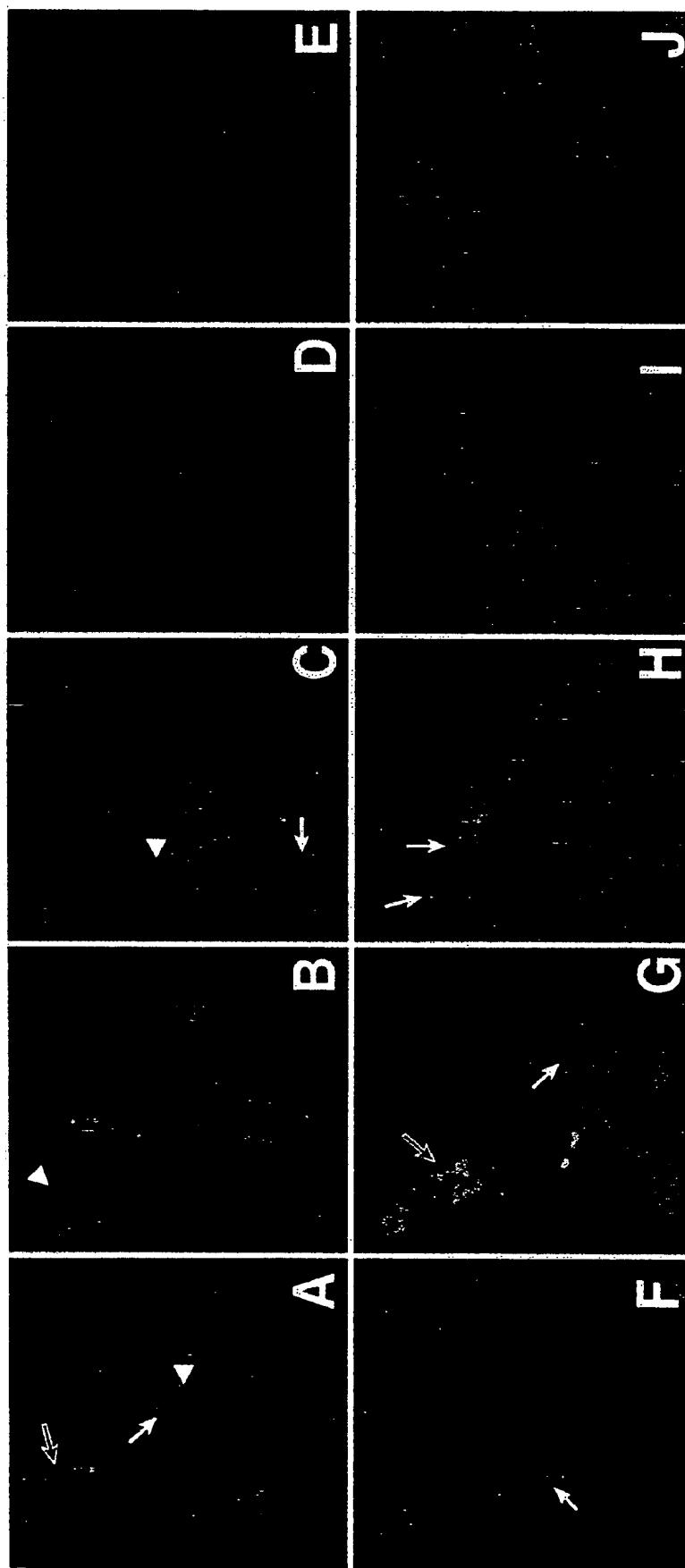


FIG. 9